1. Extracts from responses to the DECC Informal consultation on the EU Energy Efficiency Directive covering energy-saving targets and co-generation provisions

Eon

"Whether MSs wish to be subject to specific legally binding objectives in this area is a matter for them, but in our view delivery of the overall ghg reduction targets set for each MS is the key requirement to be enforced, and energy efficiency measures should be a function of that. Given the huge potential in many MSs for further action on energy efficiency as an economic means of reducing ghg emissions, MSs should in any event be strongly incentivised to take action."

"Article 3 – Energy Efficiency Targets

Member States are to set their own indicative national energy saving targets taking into account the EU 2020 Target. By 30 June 2014 the Commission will assess whether the EU is likely to achieve the 20% target based on the sum of the targets set by Member States and an assessment of national plans.

Comment

- Member States are already obliged to meet ghg reduction targets for 2020 for the non-EU ETS sector under the EU effort sharing arrangements. We would expect MSs to determine their energy efficiency targets as part of the policies needed to achieve the overall ghg reduction target. We support the principle that each MS should set itself an energy efficiency target in this context.
- The experience of the renewables energy target for 2020 shows that firm targets for the relatively near future can be quite inefficient. Member States should be encouraged to set targets on a rolling basis, which extends into the next decade in order to develop longer term EU wide projections.
- It is not clear what action the Commission will take following its 2014 assessment"

"Article 6 – Energy Efficiency Obligation Schemes

Member States must establish an energy efficiency obligation scheme requiring all energy suppliers (or distributors) to meet an annual energy-saving target equal to 1.5% of their energy sales by volume in the previous year. Alternatively, Member States may opt to take other measures to achieve energy savings amongst final customers as long as they deliver equivalent energy savings. Such alternative approaches must be approved by the Commission.

Comment

- We do not favour implementation of an obligation based approach on an EU wide basis, although we recognise that a similar approach has been successful in the UK. The emphasis at EU level should be on providing incentives to consumers to improve their energy efficiency, for example through providing low cost finance or

through fiscal incentives, and take responsibility for their energy consumption. Different types of scheme are likely to be appropriate in different MSs.

- The provision in Article 6(9) that MSs may adopt other measures of equivalent effect is therefore welcome.

- Again identical targets for all suppliers do not reflect the different potential in each MS. Any targets should be related to the energy efficiency targets provided for in Article 3 which should reflect the potential of each MS to deliver savings.

- Extending the requirement to all customers is inappropriate. Businesses are much less homogenous than households and generally (invariably for larger industrial and commercial consumers) much better placed to assess energy efficiency potential themselves. It would be highly inefficient for suppliers to be required to ensure action is taken, potentially resulting in large cross-subsidies between consumers. Any obligation should be confined to the residential market.

- Suppliers are unable to guarantee specific reductions in overall consumption (i.e. 1.5%) as they have little or no control over end-use behaviour and lifestyle of consumers and actual consumption is affected by weather and economic activity. The flexibility proposals of 6.5(c) would need to apply over a significantly longer period to address this issue.

- Any targets should preferably be expressed in terms of carbon savings as reducing consumption of low carbon electricity is less important than high carbon electricity or gas.

- The proposal that measures such as energy efficient lighting set out in Annex V should constitute only 10% of total measures is arbitrary and over prescriptive and it is unclear why these measures are regarded as short-term. This should be left to MSs.

- Note that Annex IV proposes 2.5 as the default coefficient for determining electricity savings (implying 40% thermal efficiency). This would incentivise a switch away from electricity towards direct fossil fuel heating, reducing the opportunities for low-carbon and energy efficient technologies such as heat pumps and electric vehicles. Greenhouse gas emissions would be likely to rise as a result.

- The 2.5 coefficient is inappropriate for the UK and many MSs, given the development of CCGTs and renewables, and is inappropriate for assessing performance to 2020, by which time considerably more low- and zero-carbon capacity will have entered the electricity mix"

" Article 10 – Co-generation

Member States will be required to produce a National Heating and Cooling Plan setting out action to be taken to develop the national potential for co-generation. The Plan must be submitted to the Commission by 1 January 2014 and then updated every five years

Member States must ensure that all new thermal electricity plant above 20MW allow for recovery of heat by means of a high efficiency co-generation unit and is sited where waste heat can be used. Similarly, when existing thermal electricity plant above 20MW is significantly refurbished or its permit is updated, it must be converted to allow operation as a high-efficiency co-generation installation provided it is sited where waste heat can be used.

Authorisation criteria must also be adopted whereby other new or substantially refurbished industrial installations with a thermal input above 20 MW also capture and make use of their waste heat.

Member States may lay down exemptions from these requirements on the basis of availability of heat load or a negative cost/benefit analysis, though these conditions for exemption must be approved by the Commission.

Comment

- We support Article 10(1) and (2) requiring MSs to produce a National Heating and Cooling Plan and requiring MSs to develop appropriate district heating and cooling infrastructure, although it unclear what the latter provision means in practice.
- We do not, however, support Article 10(3) and (6) which require MSs to ensure that all new thermal or significantly refurbished electricity plant above 20MW allow for recovery of heat by means of a high efficiency co-generation unit and is sited where waste heat can be used.
- A number of factors determine the optimal location of power plants, including access to fuel, the need for cooling, transmission connection and use of system costs, and proximity to electricity demand, in addition to environmental factors and the requirement to either fit CCS or to be CCS ready.
- While CHP should be encouraged and opportunities fully explored, power stations cannot always be sited near to heat loads. Given the limited available heat loads in the UK, whether for domestic or industrial use, such a requirement would either severely constrain power plant development or lead to a complex system of exemptions under Articles 10(4) and (7). This would result in substantial additional costs for electricity consumers and a potential rise in energy unserved.
- Large scale CHP may not in fact be the optimal means of providing heat to premises. Other options include district heating, heat pumps, or microCHP schemes. Supplying heat from a coal-fired plant, for example, will not necessarily have the effect of reducing CO2 emissions compared to a domestic condensing gas boiler, given the efficiency loss CHP caused to power production.
- Requiring existing power plants on refurbishment to incorporate heat supply would make refurbishment uneconomic, if no economic, accessible, heat market is available, and would lead to their premature closure.

- With the growth of renewables, fossil plant will generally no longer operate on baseload but at times when nuclear and renewable generation is not available. This is not necessarily consistent with CHP, which requires plant to run continuously when heat is needed.
- These comments are also relevant to Annex VIII which is far too prescriptive in setting common criteria requiring the location of power plants within defined distances of heat loads. This seems to assume that all new plants operate baseload at a 90% load factor (unlikely in countries with a high degree of renewable penetration) and to ignore any consideration of:

  o whether the identified heat load would in practice be suited to the provision of heat from a power station, as opposed to alternative sources such as heat pumps, community-scale CHP or district heating schemes;

  o the economics and commercial viability of converting from an existing heat source such as gas-fired condensing boilers;

  o the form in which heat is required by the customer e.g. hot water for space heating or steam for manufacturing purposes;

  o the specific construction costs of the long distance pipeline;

  o the practicality of securing development consent for the pipeline and the environmental impact of the pipeline itself."

Scottish and Southern Energy

"Supply:

Article 10: CHP will be a mandatory licensing condition for all new thermal electricity generation installations. When an existing plant is substantially refurbished, or when its permit or licence is updated, then CHP should be installed.
Member States should therefore adopt "authorisation criteria" that ensure that installations (both electricity generation and heat production) are located in sites close to heat demand points.

SSE Position – Disagree:

1. Installing CHP technology at thermal power stations can help to improve their overall efficiency. As such CHP will naturally be considered when thermal plant is being developed. However heat is often insufficiently valued to justify the high investments needed in heat network infrastructure. The carbon price (through the EU ETS) is the primary vehicle for deploying CHP where it is environmentally and economically viable, and as the price rises over time CHP will become increasingly attractive for new thermal generators.

CHP reduces the electrical efficiency of thermal generation plant, and is only viable if the value of the heat offsets the electrical loss. This creates a risk for plant operators because if a major heat user is lost for any reason over the long lifetime of a power station and heat network then they are left with a sub-optimal plant both economically and environmentally.

However it is clearly not universally true that CHP will be appropriate for every new/ refurbished thermal plant. There will be situations where CHP is not environmentally or economically viable. Therefore mandating the installation of CHP could have a number of serious unintended consequences which would jeopardise Member States security of supply:

§ Severely restrict the number of sites which can be used for thermal plant;

§ Bring forward the closure dates of plants which would have been partly/ completely refurbished;

§ Increase regulatory burdens and development risk, thereby discouraging investment.

2. Thermal power stations in the future will play a very different role to that which they do today. With increasing amounts of nuclear and renewables on the system (as encouraged by the EU's renewable energy targets) thermal plant will be used less frequently than it is currently, and therefore there will be on for a limited amount of time. This means that:

   - As the load factor of CHP decreases its viability also decreases. Therefore the positive economic impacts of CHP become questionable.

   - If stations are not generating electricity there will be no heat load. As such the industry/ residential development which are using the heat load will not be able to access the heat it requires for large parts of the year. As such it is questionable as to what the benefits of having CHP installed are if a back-up heating system is needed to operate much of the time.It therefore appears as if the European Commission have not taken into account the impact of its renewable energy targets when proposing this measure.

3. It is questionable as to how practical mandating CHP would be. Many heat demand points, especially of a size which would be able to utilise the heat produced from electricity generation, are located close to, or in, urban/residential areas. E.g. industrial estates, large residential developments. As such new plant would have to be located in these areas; or the heat demand would have to be located close to generation plant. This is unlikely to be desirable or possible in many situations.

These unintended consequences and difficulties mean that mandating the use of CHP, which is a mature technology and is already supported by the carbon price, is inappropriate. It should be left up to the asset developer and the 'host' customer to decide when CHP is fitted. If the European Commission wishes to encourage greater use of CHP it should use the EU ETS to do so."

"Demand:

Article 3: Member States should set their own national energy efficiency targets for 2020.

SSE Position – Agree:

There is an implied target already through the EU's carbon, renewable energy, and renewable fuel targets – i.e. whatever carbon savings can't be met through energy or fuel will have to be met through energy efficiency. Therefore asking Member States to set specific energy efficiency targets would not be burdensome.

SSE believes that further work should be done to see whether it would actually be more effective to introduce legally binding targets for Member States now, rather than in the future. If these targets were set now Member States would be free to choose how this target was achieved, and it could be done in the most cost-effective and suitable way for each Member State. However if they are implemented in 2/3 years it is likely that the Commission will have to introduce a number of prescriptive measures which Member States will have to follow in order to meet the targets in the necessary timescales. This is likely to result in sub-optimal, expensive outcomes for a number of Member States."

"**Article 6**: Member States should adopt energy saving obligation schemes. These would include an obligation on energy retailers/distribution to achieve energy savings of 1.5% among final customers per year.

[N.B. the Directive allows for Member States to adopt other programmes, rather than
a supplier obligation, to achieve this saving. SSE's position on this proposal is covered in more detail in '5' & '6' below].

SSE Position – Disagree unless significant changes are made. There are a number of potential problems with such an obligation that need to be addressed in more detail:

1. There is a question as to which factors would be taken into account when measuring this 1.5% saving. For example how do you account for variations in weather patterns which will distort usage statistics e.g. Year 1 has a mild summer and winter; and Year 2 has a very hot summer followed by a very cold winter. The economic situation of a country also has a major impact – how is a recession/recover to be taken into account in the savings calculation?

2. Under such an obligation suppliers would have to do large amounts of work to improve the efficiency of the housing stock. However the quality of the existing housing stock is something that suppliers have no control of/ are not responsible for and it would seem more appropriate for Government to take responsibility in this area.

3. Suppliers have limited control over end-use behaviour. As such how would they be able to guarantee a 1.5% saving? Without control over what their customers are using/ buying it is unlikely that this would be possible. There would therefore be an incentive for suppliers to increase prices to encourage less use, rather than installing measures.

Given these problems SSE believes that any obligation on suppliers would have to be based on ex-ante scores for measures to encourage installation of energy efficiency improvements. This can be designed to give a projected saving of 1.5%,

but suppliers cannot be held responsible for a failure to meet an exact percentage reduction for the reasons set out above.

However, even with this type of scheme, other problems remain:
4. Requiring all the savings to come from energy suppliers places a significant burden on electricity and gas customers. Given that there are other areas in which final energy consumption reductions can be/ are being achieved it would seem sensible if all of these areas could be counted towards the target.

5. An obligation on energy suppliers will not necessarily be the most appropriate way for every Member State to encourage energy efficiency. The UK, for example, already has a similar obligation and, depending on the regulations, may therefore be able to adapt relatively easily. For other Members States however this may not be cost effective and/or simple administratively – it may be both easier and cheaper to implement other policies to achieve the same goals.

SSE therefore supports the principle that Member States be allowed to opt to take other measures to achieve the 1.5% saving. This would allow policies that are being implemented across a number of different areas e.g. energy supply; energy generation; building standards to be counted towards the overall target. However more detail is needed on what schemes the Commission would/ would not find acceptable, how the saving could be measured e.g. ex-ante etc."

EDF

"Our key concerns are detailed below:

The proposals to cap energy use of end users, for both domestic and non-domestic consumers, could have unintended consequences, particularly for business and economic growth. While using energy more efficiently and reducing demand are important in terms of achieving climate change objectives, this should be carried out in a way that supports economic growth and consistent with the structure of the UK competitive energy market and existing policies to reduce carbon emissions.

According to Government's own projections, demand for low carbon electricity is set to increase in order to provide green house gas emissions reductions in the heat and transport sector. Technologies such as heat pumps can help provide a more efficient use of low carbon electricity to provide a greater output of renewable heat, and so imposing a cap on electricity consumption will conflict with wider decarbonisation policy.

The mandatory proposals for co-generation are too rigid. CHP, while appropriate for some locations where there is sufficient demand for a low grade heat, will not be suitable for all sites and plant. The merits of CHP should be assessed on a cost benefit and case by case basis. In addition, gas-fired CHP will in many cases not achieve reductions in carbon emissions compared with a high efficiency condensing boiler."

“EDF Energy’s key concerns centre on the proposals to cap energy use of end users, for both domestic and non-domestic consumers, and provisions on the mandatory use of cogeneration.”

“EDF Energy believes that the mandatory proposals for co-generation are too rigid. CHP, while appropriate for some locations where there is sufficient demand for a low grade heat load, will not be suitable for all sites and plant. It should be assessed on a cost benefit and case by case basis. In addition, gas-fired CHP will in many cases not achieve reductions in carbon emissions compared with a high efficiency condensing boiler. We believe that a low carbon electricity based future and a balanced approach between energy efficiency, reducing consumption and decarbonising supplies are required”

“Article 6 - Energy efficiency obligation schemes:

In the UK, energy suppliers have achieved considerable reductions in domestic carbon emissions through the energy efficiency obligations by installing energy efficiency and other low carbon measures.

With the Green Deal, the UK is now moving towards a more ambitious programme to deliver energy efficiency to a greater number of homes and business through a commercial framework and innovative financing mechanism.

This will sit alongside a new energy company obligation (ECO) to provide support for low income and vulnerable households and for harder to treat properties to top up finance under the Green Deal.

We support policies such as the Green Deal and ECO to allow customers to reduce consumption and to use energy more efficiently.

It will need to be clear how the proposed energy efficiency obligation in the directive will work within the scope of the UK’s current and evolving policy framework and in a competitive energy market, whereby customers can have separate electricity and gas suppliers and for change of supplier processes. Although energy suppliers can play a role in providing consumers with the tools to help reduce demand and use energy more efficiently, actual reductions in energy consumption will be dependent upon individual behaviour change in end users.

It is important to clarify the scope of the directive, particularly for implementation by the non-domestic sector. There are already a number of UK policies for energy efficiency in the non-domestic sector such as the CRC Energy Efficiency Scheme, Climate Change Agreements (CCAs) and soon, the Green Deal. In addition, the UK obligations for domestic customers are not an appropriate model for non-domestic customers, as the contractual arrangements and decision making structures of end users for the two categories are very different. Consequently an additional obligation is not required or appropriate for non-domestic customers.”

“Article 10 – Promotion of efficiency in heating and cooling:

While CHP can play a role as part of a wider diverse energy mix and help reduce emissions in some cases, the choice and viability of investment is highly dependent on the specifics of the site and type of generation. There are specific factors which determine the location of power plants, notably: access to grid connections, cooling water, fuel sources, avoidance of impacts of environmental receptors with high sensitivity, and meeting land use planning requirements. Therefore, there should not be mandatory requirements for CHP for all new and refurbished plant.

There is already robust legislation as part of the UK planning framework (NPSs and Section 36) which sets out how CHP must be considered in applications for new thermal generating stations. If CHP is not developed, applicants must provide detailed explanations on why it is not economically or practically feasible and also if there are any future possibilities for exploiting heat demand.

There will be different opportunities to develop CHP according to the site and generation technology. For example, for nuclear power stations: as set out in the Nuclear NPS (EN-6), the economic viability of CHP for these power stations may be more limited, as the demographic criterion in planning applications can result in stations being located away from major population centres and sources of industrial heat demand.

The development of CHP should be based on a cost benefit analysis. This needs to include:

an assessment of supporting infrastructure (e,g, pipes to carry the heat),
wider environmental impacts, and CO2 reduction benefits.

The potential for CHP and district heating efficiencies are highly dependent on the circumstances of a particular site and in the interests of consumers and cost effectiveness, only the best opportunities should be developed. A 2009 report for DECC by Poyry and Faber Maunsell suggested that conditions for cost effectiveness of district heating required a demand for 200 MWth of heat within 15km. The report also stated that CHP is more likely to be cost effective when built in as part of the original design of mixed-use developments, rather than retrofitted to existing locations.

For any proposal, CHP should be compared to other alternatives to reducing the carbon emissions from the electricity and heat supply requirements under consideration. The final selection of technology should take account of cost effectiveness, both in delivering carbon reductions and overall cost to the consumer. As a starting point, CO2 reduction benefits should be assessed relative to the emissions from electricity provided to consumers via centralised generation in combination with the provision of heat from high efficiency condensing gas boilers, in the specific context of each Member State.

Even with the relatively high carbon intensity of electricity generation in the UK, many CHP schemes would not deliver any net CO2 savings compared to grid electricity in combination with a gas boiler. As electricity generation decarbonises,

gas-fired CHP will have a higher carbon intensity. CHP would be a sub-optimal outcome for the consumer in these cases.

As a minimum, it is essential that derogations are secured to ensure that existing UK legislation on planning and siting of plant will be upheld and not superseded by the directive.

It would be preferable to remove any mandatory requirements for CHP. A more productive approach for the Directive would be to focus on removing the obstacles to CHP and enabling improvements to CHP technology, together with cost reductions. In addition, the Directive should give greater weight to the alternatives to cogeneration, by taking a balanced and integrated approach to the use of low carbon heat. This would include incentives to develop renewable heating technologies combined with the more efficient use of energy. An integrated approach could combine upgrading the building stock, installing energy efficiency measures and installing correctly sized heat pumps powered by low carbon electricity supplies. The current Directive does not account for the full range of options for decarbonising heat supply."

Centrica

"Article 6: Energy Efficiency Obligation Schemes

The requirement is for a 1.5% annual energy consumption reduction target, to be achieved via an energy efficiency obligation scheme on suppliers or through alternative measures which must be approved by the Commission. While the target may not seem unduly onerous, a fixed target does not allow for population, economic, environmental and behavioural factors that impact on the overall level of energy consumption. It ignores the possible growth in electric vehicles and micro-generation devices, such as solar panels and heat pumps, which would increase production and consumption of electricity in a Member State.

If this requirement were to apply to the totality of customers, Member State schemes risk overlapping with the EU ETS insofar as it applies to larger emitters. Carbon reduction for smaller customers could be an alternative metric for success, and we note that the UK recently replaced its Energy Efficiency Commitment (EEC) scheme with a Carbon Emissions Reduction Target (CERT) scheme. In either case targets should be flexible enough to allow for the aforementioned variables and be separate for gas and electricity. Targets should recognise that while measures such as improved insulation can be used to achieve reductions in gas used for heating, increasing usage of electrical equipment may make equivalent savings in electricity difficult or impossible."

"Article 10: Co-generation

There are a number of proposals on co-generation that appear unrealistic or unduly prescriptive. While Combined Heating and Power (CHP) should be considered and adopted where advantageous, large generation plant cannot always be located in places where there is a convenient use for the heat produced. In addition, changing patterns of generation may mean that plants would not be in operation when heat is required and retro-fitting CHP to existing plant would be excessively costly. Thus imposing CHP on new and existing plant would introduce significant economic inefficiencies, increasing costs to end consumers. While provision is made for possible exemption from mandatory CHP, such a regime would create investment uncertainty and introduce unnecessary bureaucracy"

RWE Npower

"**CHP**

Article 10 of the Energy Efficiency Directive mandates CHP schemes for all new and refurbished thermal electricity generation schemes with a total thermal input exceeding 20MW. There are some fundamental flaws with mandating CHP schemes because it will:

- have the effect of acting against the high level energy policy of decarbonisation of the economy by diverting resources away from investments which would directly contribute;
- introduce significant economic inefficiencies increasing the costs to end consumers;
- conflict with EU ETS and move away from decarbonisation at least cost;
- not meet the flexibility requirements of fossil plant when the generation mix has high proportions of wind and nuclear generation;
- force the co-location of heat and power thereby making it likely that one of them is an unsuitable location jeopardising the long-term viability and increasing the risk of the schemes;
- create distressed sellers of power or heat, if the obligation is placed only on the producer, thereby lowering returns and making the investment less likely.

Each of these points is briefly discussed below:

<u>Decarbonisation</u>

Climate change is one of the primary drivers for EU energy policy. The Strategy adopted by the EU aims to reduce greenhouse gases and carbon emissions through decarbonisation of electricity and electrification of heat demand and transport. There is a danger that measures taken in the short-term such as those set out in Article 10

mandating CHP scheme divert resources away from investments which would directly contribute to meeting the high level goal of decarbonisation. Indeed it would appear to require the switch from electric heating to fossil fuel based systems. Both of these will undermine decarbonisation.

Economic inefficiency

Economic inefficiency is introduced through prescribing: a particular technology; priority despatch; the location of schemes; increasing risk of scheme and lowering the likelihood of investments. Such a broad range of additional costs will increase prices to end customers.

Conflict with EU ETS

The EU ETS is the mechanism the Eu created to deliver decarbonisation in an economically efficient way. The requirement to build only CHP based thermal generation cuts across the EU ETS, reducing economic efficiency and moves away from the decarbonisation of electricity. A move away from the EU ETS is a move away from decarbonisation at least cost, and it would appear makes EU ETS redundant.

Changing Generation Mix

Climate change is driving changes in the generation mix in the UK. In the future we expect to have a significant proportion of wind generation and nuclear plant. Broadly, wind generation is intermittent and nuclear plant is inflexible. In this world, fossil fuel plant will take the role of balancing the system. Output from fossil plant will be both variable and unpredictable, and may mean the plant will not be required for significant periods of time. It seems unlikely that heat demand would find an unpredictable heat source attractive from an oversized CHP plant which is used for balancing the electricity system. CHP plant with electricity and heat outputs well matched to the host process would of course be unaffected by the changing generation mix. The alternative of priority despatch for CHP would create further economic inefficiencies and increase carbon emissions compared with wind or nuclear generation.

Forced Co-location of Heat and Power

Successful CHP schemes normally rely on two parties being able to sign long term contracts to provide assets and sell/buy products with an acceptable risk of not being left with stranded assets. This relies on careful consideration of suitable location for host process and power/heat provider with and range of criteria being considered, such as access to labour, raw materials, and transport connections. Forcing either power plants or heat demand processes to be located in unsuitable locations for

either will inevitably jeopardise the long-term viability of the enterprise and increase the risk of stranded assets. The enhanced risk level will not encourage more contracts to be signed and so mandating the location of either CHP or host process is most unlikely to be successful in delivering more CHP capacity.

Asymmetry of Obligations

In addition, there are obligations on the generator and not on the owner of the heat source, the generator (in this case the seller) effectively becomes a distressed seller, which lowers returns and makes the investment less likely. In order for obligations to work they need to be symmetrical.

"**Energy efficiency obligation schemes**

It is an important principle of regulation that the obligations should be placed on those best placed to manage them. In the case of improvements in energy efficiency, this is clearly the end customer. Energy companies have only a limited scope to influence consumer behaviour. As the country moves further down the path of energy efficiency, the limitations in the impact of which can be made by energy companies becomes progressively more important. It is unlikely that we would be permitted to reflect any obligations on ourselves in any contractual obligation on customers.

It may be that the Green Deal will be the vehicle to make the breakthrough in the consumer appetite for energy efficiency measures. It may be that price increases projected to rise from primary fuel costs and/or environmental programmes stimulate a step change in the interest in energy efficiency. However, both these propositions carry significant risks. If that proves to be the case, energy companies may be put in apposition where they have to offer incentives over and above discounted measures in order to meet their targets. Ultimately these costs would find their into the bills of the generality of customers with the perverse effect of offsetting the savings of those who have installed energy efficiency measures.

We believe that obligation schemes without other measures designed to stimulate demand for energy saving and customer engagement in energy efficiency are unlikely to deliver the required savings cost effectively.

With regard to the specific proposals in the Directive, requiring suppliers to achieve annual energy savings equal to 1.5% of their energy sales in the previous year is an extremely ambitious target which causes us a number of concerns:

- The level of savings required is extremely high is comparison to existing schemes which target CO2 reductions over a longer period rather than reductions in consumption.

- The target (final or primary energy) is unclear, without an end point and does not explain how variations in weather, the economic environment and household demographics are taken into account.

- Being uniform across Member States, it takes no account of existing energy efficiency measures in place and the ability to deliver further measures following a history of energy saving schemes in GB.

- As non-domestic customers are included in the savings target, there would be appear to be limited savings achievable from industrial and larger commercial customers, thus potentially increasing the savings required from domestic customers.

- If the obligations are imposed only electricity and gas suppliers with more than 250,000 customers rather than all suppliers of all forms of energy, then as well as distorting competition, this will disproportionately impact the obligated electricity and gas supply companies.

- Greater flexibility in terms of the duration of the schemes for achieving the savings is needed if ECO and the Green Deal are to be considered as obligation schemes rather than other measures.

- The exclusion of transport would appear to indicate that the energy efficiency benefits of electrification are not to be taken account of.

- Applying a default coefficient of 2.5 on electricity is likely to have a perverse effect on energy saving measures by failing to recognise the changes in energy mix. For example a gas boiler with 70% efficiency would be chosen before a heat pump which where fuelled by renewable energy would have 100% efficiency"

Scottish Power

Art. 3: Energy efficiency targets **New title: Energy saving targets**	
IT SAYS	**ALTERNATIVE WORDING**
1. Member States shall set a national energy *efficiency target expressed as an absolute level* of primary energy consumption in 2020. When setting these targets, they shall take into account the Union's target of 20 %...	1. Member States shall set a national energy ***saving target*** of primary energy consumption in 2020. When setting these targets, they shall take into account the Union's target of 20 %...
Justification: To distinguish between "efficiency" and "saving" in energy	

Art. 6: Energy efficiency obligation schemes **New title: Energy Efficiency National Plans**	
IT SAYS	**ALTERNATIVE WORDING**
1. Each Member State shall set up an energy efficiency obligation scheme. This scheme shall ensure that either all energy distributors or all retail energy sales companies operating on the Member State's territory achieve annual energy savings equal to1.5% of their energy sales, by volume, in the previous year in that Member State excluding energy used in transport. This amount of energy savings shall be achieved by the obligated parties among final customers.	***1. Each Member State shall present before XXXX an Energy Efficiency National Plan in which the national energy saving goal will be set as established by art. 3.1, detailing the specific measures to adopt together with the expected saving from any one of them.*** ***To this end, the Comission will establish, by means of delegated acts, a relation of energy efficiency measures that the Member States can take, as well as the energy savings derived from any one of them.***
2. Member States shall express the amount of energy savings required from *each obligated party in terms of* either *final* or primary *energy consumption*. *The method chosen for expressing the required amount of energy savings shall also be used for calculating the savings claimed by obligated parties*. The conversion factors in Annex IV shall apply.	2. Member States shall express the amount of energy savings required ***in terms*** of primary energy. The conversion factors in Annex IV shall apply.
3. Measures that target short-term savings, as defined in Annex V(1), shall not account for more than 10% of the amount of energy savings required from each obligated party and shall only be eligible to count towards the bligation laid down in paragraph 1 if combined with measures to which longer-term savings are attributed.	3.Deleted
4. Member States shall ensure that the savings claimed by obligated parties are calculated in accordance with Annex V(2). They shall put in place control systems under which at least a statistically significant proportion of the energy efficiencyimprovement measures put in place by the obligated parties is independently verified.	4. Deleted
5. Within the *energy efficiency obligation scheme*, Member States may: (a) include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing; *(b) permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties; in this case they shall establish an*	5. Within the energy efficiency ***measures*****,** Member States may: (a) include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing;

accreditation process that is clear, transparent and open to all market actors, and that aims at minimising the costs of certification; *(c) allow obligated parties to count savings obtained in a given year as if they had instead been obtained in any of the two previous or two following years*.	
6. Member States shall publish the energy savings achieved *by each obligated party* and data on the annual trend of energy savings under the scheme. *For the purposes of publishing and verifying the energy savings achieved, Member States shall require obligated parties to submit to them at least the following data:* *a) the energy savings achieved;* *b) aggregated statistical information on their final customers (identifying significant changes to previously submitted information); and* *c) current information on final customers' consumption, including, where applicable, load profiles, customer segmentation and geographical location of customers, while preserving the integrity and confidentiality of private or commercially sensitive information in compliance with applicable European Union legislation.*	6. Member States shall publish the energy savings achieved and data on the annual trend of energy savings under the scheme.
7. Member States shall ensure that market actors refrain from any activities that may impede the demand for and delivery of energy services or other energy efficiency improvement measures, or hinder the development of markets for energy services or other energy efficiency improvement measures, including foreclosing the market for competitors or abusing dominant positions.	7. Member States shall ensure that market actors refrain from any activities that may impede the demand for and delivery of energy services or other energy efficiency improvement measures, or hinder the development of markets for energy services or other energy efficiency improvement measures, including foreclosing the market for competitors or abusing dominant positions.
8. Member States may exempt small energy distributors and small retail energy sales companies, namely those that distribute or sell less than the equivalent of 75 GWh of energy per year, employ fewer than 10 persons or have an annual turnover or annual balance sheet total that does not exceed EUR 2 000 000, from the application of this Article. Energy produced for self use shall not count towards these thresholds.	8. Deleted
9. As an alternative to paragraph 1, Member States may opt to take other measures to achieve energy savings among final customers. The annual amount of energy savings achieved through this approach shall be equivalent to the amount of energy savingsrequired in paragraph 1. Member States	9.Deleted

opting for this option shall notify to the Commission, by 1 January2013 at the latest, the alternative measures that they plan to adopt, including the rules on penalties referred to in Article 9, and demonstrating how they would achieve the required amount of savings. The Commission may refuse such measures or make suggestions for modifications in the 3 months following notification. In such cases,the alternative approach shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified draft measures. *10. If appropriate, the Commission shall establish, by means of a delegated act in accordance with Article 18, a system of mutual recognition of energy savings achieved under national energy efficiency obligation schemes. Such a system shall allow obligated parties to count energy savings achieved and certified in a given Member State towards their obligations in another Member State.*	10. Deleted
Justification: Efficiency measures specific election should be left to the Member States subsidiarity on the basis of the features and possibilities of any one of them.	

Art. 10. Promotion of efficiency in heating and cooling	
IT SAYS	**ALTERNATIVE WORDING**
Sections 3 , 4 ,5 6, 7, 8 and 9	Deleted
Justification: The obligation to install heat recovery systems in new and big reforms of power generation facilities leads to significant technical problems. It interferes with the market conditions in which these facilities operates, as well.	

Art. 10 b) New: Heat recovery in power generation facilities	
IT SAYS	**ALTERNATIVE WORDING**
	1. The Member States shall ensure that all new thermal facilities of power generation, whose total rated thermal input exceeds 20 MW, include within the authorisation process, a technical and financial viability study to recover the residual heat by means of high efficiency cogeneration units. **2. The Member States shall ensure that when an existing power generation facility with a total rated thermal input exceeds 20 MW, be substantially renewed or when, in accordance with Article 21 of 2010/75/CE Directive, updates the licence, includes within the authorisation**

	process a technical and financial viability study to recover the residual heat by means of high efficiency cogeneration units. **3. The Commission will establish the criteria to analyze the costs/benefits.**
Justification: It is appropiate to develop a viability of heat recovery analysis within the administrative processes for new and important reforms on power generation facilities. It will provide the facility owner with additional information to take the final decision on the basis of market expectations that can be assessed.	

2 Extract from Minutes of meeting held at on 16 August 2011 in rooms LG05/06 at 3 Whitehall Place to discuss the Energy Efficiency Directive at which representatives of EDF, E.ON, Centrica and RWE Npower were present

Attendees:

[redacted] - EDFE	[redacted] – DECC
[redacted] - Centrica	[redacted] - DECC
[redacted] - E.ON UK	[redacted] - DECC
[redacted]	[redacted] - DECC
[redacted] - RWEnpower	[redacted] - DECC
[redacted]	[redacted] - DECC
[redacted]	[redacted] - DECC
[redacted]	[redacted] - DECC

Article 6 (Supplier Obligation)

- Pleased that obligation would apply to all customers, and not just domestic. This certainly would make achievement of a target easier. However, extension of the existing UK supplier obligation to non-domestic customers would not be workable.
- Keen to hear DECC views on how target would be calculated. Final or primary energy? Very different figures…
  DECC: although MS can set target/record savings in terms of primary or final energy consumption the actual target is on final energy sales (ie final energy consumption) so this primary/final distinction can only relate to measurement, not achievement. Achievement will always have to be translated back to final energy.
- Current obligations are for 4 year phases. This model offers much greater flexibility, with more options open to attain the target.
- Transition from a subsidised market place towards the Green Deal model will be challenging, and complicated by Article 6.
  DECC: We recognise the risk if sending mixed messages surrounding the Green Deal space – potential impact on investor certainty.
- No recognition of early-mover action, or of different starting points.
  DECC: Possibly because of the difficulty in apportioning effort?

  DECC: A key reason why the commission is pursuing the supplier obligation model is because they have seen how successful CERT/CESP schemes have been here. This should put us in a position of strength when it comes to negotiations.

  DECC: Do we need/want a de-facto target in Article 6,as well as that specified in Article 3?

  DECC: We recognise the difficulty presented by statistical lag.

- What will the impact of transport electrification be on the long-term viability of this target?
- This proposal does not reflect the fact that we need to reduce high-carbon energy consumption (i.e. fossil fuels) not low-carbon energy consumption (e.g. renewables). Is there any way to express or capture this? Perhaps reference instead to carbon savings?

Article 10 (CHP)

- The UK needs new generation capacity. It does not make sense to make this more difficult to achieve.
- The Committee on Climate Change projects that (under a low-carbon scenario) fossil plants will be running at very low loads (~15%?). This would not really be compatible with CHP, where heat demand is required constantly. Supplementary heating systems would be needed, thereby defeating the point…

  DECC: Recognise concerns, although there could be technical advantages to CHP, such as load-balancing… but if you have any evidence that CHP-ready (but not enabled)plant is less efficient that non-CHP-ready plant, we would be grateful for receipt.

- What would the capital cost of heat networks be?
- Why should CHP get priority dispatch? It isn't low-carbon…?

- Conclusion: CHP is very effective in some circumstances, and barriers to development must be removed. But mandating its roll-out in unsuitable circumstances would run contrary to other objectives.
- Must be considered in the context of the entire energy network (which itself is in a state of flux), and the whole de-carbonisation agenda.
- Poor drafting could result in real barriers to building new generation. We need to address the barriers, and support where cost-effective, but not mandate regardless of implication!

  DECC: CHP will likely be a major issue for us in the negotiations. There are many issues here, not least the siting and planning regime implications. Cion have indicated that there could be some flexibility here.

Extract from Agenda of meeting held at the Association of Electricity Producer at 14:30 on 15th September at which representatives of DECC, EON, EDF. Centrica, Scottish Power, RWE npower and SSE were present.

Dear all

As promised I attach an attendance list for today and, for ease of reference, the agenda.

1. [redacted] E.ON UK (Chairman)
2. [redacted] Centrica (Vice Chairman)
3. [redacted] SSE
[redacted]
5. [redacted] EDF Energy
[redacted]
7. [redacted] ScottishPower
[redacted]
9. [redacted] E.ON UK
[redacted]
13. [redacted] RWE npower
[redacted]

I look forward to seeing you later today.

Regards

[redacted]

DECC/Ofgem/Industry Meeting on EU Issues

Thursday 15th September 2011, 14.00-15.30 hrs at AEP Offices, 5-11 Regent St, LONDON SW1Y 4LR

AGENDA

[redacted]

2. Energy Efficiency Directive